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Constellation Energy
Generation Group

November 18, 2005

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: **R.E. Ginna Nuclear Power Plant**
Docket No. 50-244

Application for Amendment to Facility Operating License Regarding the Testing Requirement for the Containment Spray Nozzles

In accordance with the provisions of 10 CFR 50.90, R.E. Ginna Nuclear Power Plant, LLC (Ginna LLC) is submitting a request for an amendment to the Technical Specifications (TS) for the R.E. Ginna Nuclear Power Plant.

The proposed amendment would modify the TS testing requirement for the containment spray nozzles, as contained in TS surveillance SR 3.6.6.15. The current fixed frequency of the surveillance is proposed to be replaced with a maintenance or event based frequency. The revised frequency is, "following maintenance that could result in nozzle blockage." This proposed change is consistent with previously approved changes at the Perry Nuclear Power Plant (Accession Number ML003730258), Palisades Nuclear Plant (Accession Number ML030410045), Calvert Cliffs Nuclear Power Plant (Accession Number ML040720077), and Crystal River Nuclear Plant (Accession Number ML051710381).

It has been determined that this amendment application does not involve a significant hazard consideration as determined per 10 CFR 50.92. Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of this amendment.

Enclosure 1 provides a description and assessment of the proposed changes. Enclosure 2 provides the existing TS pages marked up to show the proposed changes. Enclosure 3 provides revised (clean) TS pages. Enclosure 4 provides the existing TS Bases pages marked up to reflect the proposed change (for information only). Changes to the TS Bases will be provided in a future update in accordance with the Bases Control Program. There are no additional commitments associated with this amendment request.

Approval of this amendment application is requested by September 1, 2006 to support Ginna's next scheduled refueling outage. Once approved, this amendment will be implemented within 60 days.

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In accordance with 10 CFR 50.91, a copy of this amendment application is being provided to the designated New York State official.

Should you have questions regarding the information in this submittal, please contact Mr. George Wrobel at (585) 771-3535 or George.Wrobel@constellation.com.

Very truly yours,

Mary G. Korsnick

Mary G. Korsnick

STATE OF NEW YORK :
: **TO WIT:**
COUNTY OF WAYNE :

I, Mary G. Korsnick, begin duly sworn, state that I am Vice President, R.E. Ginna Nuclear Power Plant, LLC (Ginna LLC), and that I am duly authorized to execute and file this request on behalf of Ginna LLC. To the best of my knowledge and belief, the statements contained in this document are true and correct. To the extent that these statements are not based on my personal knowledge, they are based upon information provided by other Ginna LLC employees and/or consultants. Such information has been reviewed in accordance with company practice and I believe it to be reliable.

Mary G. Korsnick

Subscribed and sworn before me, a Notary Public in and for the State of New York and County of Monroe, this 18 day of November, 2005.

WITNESS my Hand and Notarial Seal:

Sharon L. Miller
Notary Public

My Commission Expires:

SHARON L. MILLER
Notary Public, State of New York
Registration No. 01MI6017755
Monroe County
Commission Expires December 21, 2006

Enclosures:
1. Evaluation of Proposed Change
2. Proposed Technical Specification Changes (mark-up)
3. Proposed Technical Specification Pages (retyped)
4. Marked-up Copy of Technical Specification Bases

cc: S. J. Collins, NRC
P.D. Milano, NRC
Resident Inspector, NRC (Ginna)
J. P. Spath, NYSERDA
P.D. Eddy, NYSDPS

A001

Enclosure 1

Evaluation of Proposed Changes

Evaluation of Proposed Change

Subject: Application for Amendment to Facility Operating License Regarding the Testing Requirement for the Containment Spray Nozzles

1.0 DESCRIPTION

This letter is a request to amend Operating License No. DPR-18 for the R.E. Ginna Nuclear Power Plant (Ginna).

The proposed change would modify the Technical Specifications (TS) surveillance requirement for the containment spray nozzles, as contained in TS surveillance SR 3.6.6.15. The current fixed frequency of the surveillance is proposed to be replaced with a maintenance or event based frequency.

2.0 PROPOSED CHANGE

This License Amendment Request (LAR) proposes to revise the R.E. Ginna Nuclear Power Plant, LLC (Ginna LLC) TS to reflect the change summarized below and shown in Enclosures 2 and 3.

1. SR 3.6.6.15

    a. The Frequency of the Surveillance for the containment spray nozzles is being revised from "10 years" to "Following maintenance which could result in nozzle blockage".

The Bases for TS surveillance SR 3.6.6.15 is being revised to correspond to the proposed surveillance frequency wording. In addition, the Bases change provides clarification of what constitutes maintenance that could result in flow blockage. The Bases also includes provisions to perform a visual inspection in lieu of a smoke or air test if that method is determined to be more effective.

3.0 BACKGROUND

The Containment Spray (CS) System has two safety functions. The CS System removes heat from the containment atmosphere following a design basis loss-of-coolant accident (LOCA) or main steam line break accident inside Containment. This ensures that the containment pressure does not exceed the containment design pressure. The CS System also assists in removing iodine and other radionuclides from the containment atmosphere following a LOCA.

TS surveillance 3.6.6.15 currently requires a test every ten years to ensure that the CS System nozzles are not obstructed. The TS Bases further clarify that the test is performed using a low pressure air or smoke flow test to verify that the spray nozzles are not obstructed and that flow will be provided when required. However, nozzle blockage is considered unlikely, except as a consequence of maintenance or repair, since the system was demonstrated to be OPERABLE prior to initial plant startup, successful air or smoke tests have been performed, and the design of the system minimizes the likelihood of corrosion or degradation. The risks and costs associated with performance of this test are not commensurate with the safety benefit of performing the test unless there has been an activity which may have resulted in the introduction of material into the piping that may lead to nozzle blockage. The subject spray nozzles are located high in the Containment. Access to the nozzles, to verify the required air or smoke flow, is difficult and presents substantial personnel safety hazards. The costs of performing the air/smoke flow test are high, as performance of the test may delay critical-path refueling outage activities. These risks and costs are unwarranted given the very low risk of nozzle obstruction. Perry Nuclear Power Plant, Palisades Nuclear Plant, Calvert Cliffs Nuclear Power Plant, Crystal River Nuclear Plant, as well as other licensees, have obtained license amendments that revised the Frequency of the test from every 10 years to following maintenance which could result in nozzle blockage (reference section 7.0 PRECEDENTS).

4.0 TECHNICAL ANALYSIS

The CS System consists of two redundant subsystems. Each subsystem contains one spray header, a pump, associated piping and valves, and instrumentation. There are a total of 179 spray nozzles. All portions of the CS System in contact with borated water are fabricated of stainless steel or other corrosion resistant materials. The CS System nozzles are made of corrosion resistant stainless steel and are of a hollow cone, ramp bottom design without any moving parts which could cause clogging. The CS System is maintained closed during normal operation to provide containment isolation. The CS System is described in Section 6.2.2.2, "Containment Spray System," of the Ginna Station Updated Final Safety Analysis Report.

Air/smoke flow through the nozzles was proven in initial plant pre-operational tests and in five subsequent tests. A partial test was performed in 1996, following maintenance activities associated with steam generator replacement. Those tests have shown that all nozzles have unobstructed flow.

Nozzle blockage is considered unlikely during normal operations for the following reasons:

The nozzles and piping of the CS System are made of corrosion resistant materials (stainless steel). The piping at the containment spray headers elevation and the nozzles are kept dry, due to the height difference with the Refueling Water Storage Tank (initial suction source of CS). Therefore, degradation of the spray nozzles is not expected. There has not been an inadvertent actuation of the spray system.

The nozzles are located at the top of the containment dome and therefore, introduction of foreign material from the exterior to the system is unlikely.

Procedure IP-HSC-1, Foreign Material Exclusion, developed using INPO 97-008 (MA-320), "Foreign Material Exclusion Program," is in place to prevent the introduction of foreign material into the CS System. When maintenance or repairs are performed on the CS System, or other connected systems that could result in obstruction of the spray nozzles, the Foreign Material Exclusion (FME) program ensures that system cleanliness is maintained. Procedure IP-HSC-1 includes criteria for establishing FME areas, steps to take if FME control is lost and guidance for FME retrieval. FME areas are clearly marked and material accountability is assured through logs and securing of loose items and tools. FME barriers and covers are used except when performing necessary operations. The FME controls require post maintenance verification of system cleanliness and freedom from foreign materials. If any material is unaccounted for in an FME area or a general FME concern is observed, a condition report is initiated in the corrective action program which would provide for a research of the scope of the issue, determine what actions are necessary to return the area to the required level of cleanliness and determine whether testing is necessary.

No maintenance has been performed on spray headers or nozzles since the partial test in 1996 following the steam generator replacement. Maintenance on other portions of the CS System has included routine periodic activities. FME control has not been lost for any of these activities. Should maintenance activities or unanticipated circumstances result in concerns that the CS spray headers may become obstructed, performance of the spray nozzle flow test or a visual inspection would be required by the revised SR to verify system Operability.

5.0 REGULATORY ANALYSIS

5.1 No Significant Hazards Consideration

R.E. Ginna Nuclear Power Plant, LLC has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed change modifies the SR to verify that the Containment Spray System nozzles are unobstructed after maintenance that could introduce material that could result in nozzle blockage. The spray nozzles are not assumed to be initiators of any previously analyzed accident. Therefore, the change does not increase the probability of any accident previously evaluated. The spray nozzles are assumed in the accident analyses to mitigate design basis accidents. The revised SR to verify system OPERABILITY following maintenance is considered adequate to ensure OPERABILITY of the Containment Spray System. Since the system will still be able to perform its accident mitigation function, the consequences of accidents previously evaluated are not increased. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No.

   The proposed change revises the SR to verify that the Containment Spray System nozzles are unobstructed after maintenance that could result in nozzle blockage. The change does not introduce a new mode of plant operation and does not involve physical modification to the plant. The change will not introduce new accident initiators or impact the assumptions made in the safety analysis. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No.

   The proposed change revises the frequency for performance of the SR to verify that the Containment Spray System nozzles are unobstructed. The frequency is changed from every 10 years to following maintenance that could result in nozzle blockage. This requirement, along with foreign material exclusion programs and the remote physical location of the spray nozzles, provides assurance that the spray nozzles will remain unobstructed. As the spray nozzles are expected to remain unobstructed and able to perform their post-accident mitigation function, plant safety is not significantly affected. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, R.E. Ginna Nuclear Power Plant, LLC concludes that the proposed amendment(s) present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

Ginna was initially licensed in accordance with the proposed Atomic Industrial Forum (AIF) versions of the general design criteria issued for comment in 1967, which are listed in Chapter 3.1.1 of the UFSAR. The draft general design criteria are similar, but not identical, to the 10 CFR 50 Appendix A, General Design Criteria (GDC) for Nuclear Plants. The following AIF-GDCs are applicable to the design and testing of the CS System. In parentheses following the AIF-GDCs is the similar GDC:

AIF-GDC 49, "Containment Design Basis" (GDC 50)
AIF-GDC 52, "Containment Heat Removal Systems" (GDC 38)
AIF-GDC 58, "Inspection of Containment Pressure Reducing Systems" (GDC 39)
AIF-GDC 59 "Testing of Containment Pressure-Reducing Systems Components" (GDC 40)
AIF-GDC 60 "Testing of Containment Spray Systems" (GDC 40)
AIF-GDC 61 "Testing of Operational Sequence of Containment Pressure-Reducing Systems" (GDC 40)

The proposed revision of the SR does not impact conformance to the applicable AIF-GDCs. The design of the CS System is to reduce containment pressure following an accident in order to meet the requirements of 10 CFR 50.46, Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors, 10 CFR 50.49, Environmental qualification of electric equipment important to safety for nuclear power plants, and 10 CFR 50.67, Accident source term. The system OPERABILITY requirements, the corrosive resistant design combined with the requirement to perform post-maintenance testing to verify system OPERABILITY, minimize the potential for nozzle obstruction and provide confidence that the systems can perform their assumed functions. Therefore, the proposed change to revise the frequency of the SR is consistent with all applicable regulatory requirements or criteria.

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATION

10 CFR 51.22(c)(9) provides criteria for identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment to an operating license for a facility requires no environmental assessment if operation of the facility in accordance with the proposed amendment would not:

(i) involve a significant hazards consideration,

(ii) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and

(iii) result in a significant increase in individual or cumulative occupational radiation exposure.

Ginna LLC has reviewed proposed License Amendment Request and concludes it meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 5 1.22(c), no environmental impact statement or environmental assessment needs to be prepared in connection with this request.

7.0 PRECEDENTS

The following amendments were issued by the NRC to Licensees and serve as precedents for this proposed change:

1. Letter from Douglas V. Pickett (NRC) to Mr. John Wood (Perry Nuclear Power Plant), Perry Nuclear Power Plant Unit 1 - Issuance of Amendment (TAC No. MA7136), dated June 29, 2000 (Amendment 113). Accession Number ML003730258

2. Letter from Johnny H. Eads, (NRC) to Mr. Douglas E. Cooper (Palisades Nuclear Plant), Palisades Plant - Issuance of Amendment Re: Containment Spray Nozzles (TAC No. MB4282), dated February 24, 2003 (Amendment 211). Accession Number ML030410045

3. Letter from Guy S. Vissing (NRC) to Mr. George Vanderheyden (Calvert Cliffs Nuclear Power Plant) Calvert Cliffs Nuclear Power Plant, Units Nos. 1 and 2 - Amendment Re: Changes to the Testing Requirements for Containment Spray Nozzles (TAC Nos. MC0030 and MC0031), April 8, 2004 (Amendments 264 and 241). Accession Number ML040720077

4. Letter from Brenda L. Mozafari (NRC) to Mr. Dale E. Young (Crystal River Nuclear Power Plant) Crystal River Unit 3 - Issuance of Amendment Regarding Reactor Building Spray Nozzles Surveillance (TAC No. MC4878), dated August 4, 2005 (Amendment 219). Accession Number ML051710381

Enclosure 2
R.E. Ginna Nuclear Power Plant

Proposed Technical Specification Changes (Mark-up)

SURVEILLANCE		FREQUENCY
SR 3.6.6.11	Verify each CS pump starts automatically on an actual or simulated actuation signal.	24 months
SR 3.6.6.12	Verify each CRFC unit starts automatically on an actual or simulated actuation signal.	24 months
SR 3.6.6.13	Verify each automatic NaOH System valve in the flow path that is not locked, sealed, or otherwise secured in position actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.6.6.14	Verify spray additive flow through each eductor path.	5 years
SR 3.6.6.15	Verify each spray nozzle is unobstructed.	~~10 years~~

Following maintenance which could result in nozzle blockage

Enclosure 3
R.E. Ginna Nuclear Power Plant

Proposed Technical Specification Pages (retyped)

3.6 CONTAINMENT SYSTEMS

3.6.6 Containment Spray (CS), Containment Recirculation Fan Cooler (CRFC), and NaOH Systems

LCO 3.6.6 Two CS trains, four CRFC units, and the NaOH system shall be OPERABLE.

- NOTE -

In MODE 4, both CS pumps may be in pull-stop for up to 2 hours for the performance of interlock and valve testing of motor operated valves (MOVs) 857A, 857B, and 857C. Power may also be restored to MOVs 896A and 896B, and the valves placed in the closed position, for up to 2 hours for the purpose of each test.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION		REQUIRED ACTION		COMPLETION TIME
A.	One CS train inoperable.	A.1	Restore CS train to OPERABLE status.	72 hours
B.	NaOH system inoperable.	B.1	Restore NaOH System to OPERABLE status.	72 hours
C.	Required Action and associated Completion Time of Condition A or B not met.	C.1	Be in MODE 3.	6 hours
		AND		
		C.2	Be in MODE 5.	84 hours
D.	One or two CRFC units inoperable.	D.1	Restore CRFC unit(s) to OPERABLE status.	7 days
E.	Required Action and associated Completion Time of Condition D not met.	E.1	Be in MODE 3.	6 hours
		AND		
		E.2	Be in MODE 5.	36 hours

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Two CS trains inoperable. OR Three or more CRFC units inoperable.	F.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.6.1	Perform SR 3.5.2.1 and SR 3.5.2.3 for valves 896A and 896B.	In accordance with applicable SRs.
SR 3.6.6.2	Verify each CS manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.	31 days
SR 3.6.6.3	Verify each NaOH System manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.	31 days
SR 3.6.6.4	Operate each CRFC unit for ≥ 15 minutes.	31 days
SR 3.6.6.5	Verify cooling water flow through each CRFC unit.	31 days
SR 3.6.6.6	Verify each CS pump's developed head at the flow test point is greater than or equal to the required developed head.	In accordance with the Inservice Testing Program
SR 3.6.6.7	Verify NaOH System solution volume is ≥ 3000 gal.	184 days
SR 3.6.6.8	Verify NaOH System tank NaOH solution concentration is ≥ 30% and ≤ 35% by weight.	184 days
SR 3.6.6.9	Perform required CRFC unit testing in accordance with the VFTP.	In accordance with the VFTP
SR 3.6.6.10	Verify each automatic CS valve in the flow path that is not locked, sealed, or otherwise secured in position actuates to the correct position on an actual or simulated actuation signal.	24 months

SURVEILLANCE		FREQUENCY
SR 3.6.6.11	Verify each CS pump starts automatically on an actual or simulated actuation signal.	24 months
SR 3.6.6.12	Verify each CRFC unit starts automatically on an actual or simulated actuation signal.	24 months
SR 3.6.6.13	Verify each automatic NaOH System valve in the flow path that is not locked, sealed, or otherwise secured in position actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.6.6.14	Verify spray additive flow through each eductor path.	5 years
SR 3.6.6.15	Verify each spray nozzle is unobstructed.	Following maintenance which could result in nozzle blockage

Enclosure 4
R.E. Ginna Nuclear Power Plant

Marked-up Copy of Technical Specification Bases

The bases changes are being provided for information only to show the changes R.E. Ginna Nuclear Power Plant, LLC intends to make following NRC approval of this LAR. The bases are under R.E. Ginna Nuclear Power Plant, LLC control for all changes in accordance with Technical Specification 5.5.13.

SR 3.6.6.15

With the CS inlet valves closed and the spray header drained of any solution, low pressure air or smoke can be blown through test connections. ***As an alternative, a visual inspection (e.g. boroscope) of the nozzles or piping could be utilized in lieu of an air or smoke test if a visual inspection is determined to provide an equivalent or a more effective post-maintenance test. A visual inspection may be more effective if the potential for material intrusion is localized and the affected area is accessible.*** This SR ensures that each spray nozzle is unobstructed and provides assurance that spray coverage of the containment during an accident is not degraded. Due to the passive design of the nozzle, ***and the corrosion resistant design of the system, a test performed following maintenance which could result in nozzle blockage*** ~~a test at 10 year intervals~~ is considered adequate to detect obstruction of the nozzles. ***Maintenance that could result in nozzle blockage would be those maintenance activities where the Foreign Material Exclusion program controls were deemed ineffective. For activities, such as a valve repair/replacement, a visual inspection would be the preferred post-maintenance test since small debris in a localized area is the most likely concern. A smoke or air test may be appropriate following an event where a large amount of debris potentially entered the system or borated water was actually discharged through the spray nozzles.***